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RESEARCH REPORT

Recent research activities in WHO's mental health programme*

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INTRODUCTION

The mental health programme of WHO has been formulated through a process of consultation within WHO, with other United Nations bodies, with Governments, with the scientific community and with various non-governmental organizations (Sartorius, 1978; WHO, 1983*a*; Lambo & Sartorius, in the press).

The programme's objectives are broad and cover three main areas: prevention and control of mental, neurological and psychosocial disorders such as those related to the abuse of alcohol and drugs; mental health aspects of general health care; and psychosocial aspects of overall development. These three areas of concern were identified in the review of the situation in the countries and are often reflected in national programmes. They also open possibilities for collaboration with a variety of other programmes within WHO and with various agencies within the United Nations' system.

For its implementation, the programme relies on a network of collaborating centres in more than 60 countries, expert advisory panels, non-governmental organizations and various governmental agencies in WHO member states. The main types of activity are collaboration with governments in mental health policy and programme formulation; transfer of information (through publications, meetings, presentations) relevant to mental health programmes and obtained from a variety of sources: the development of consensus statements of key issues; organization and support of national and international training activities, and an extensive effort to stimulate and coordinate research activities.

The themes for WHO research are selected from proposals consonant with the medium-term programme of the Organization (WHO document MNH/MTP/81·1). The criteria for selection of topics include the social relevance of the subject of research (e.g. research on prevalent disorders leading to serious disability would have higher priority), the likelihood that such research could not be carried out without WHO's involvement, the probability that useful results will become available in the foreseeable future, the interest of institutions and individuals to collaborate with WHO on the topic, and ethical acceptability. Projects promoting cooperation with and between developing countries and bringing together scientists from different regions, political and economic spheres and language areas are given higher priority than those involving a single institution or country.

WHO is an international organization which carries out its functions in cooperation with member states. It has a unique position in the field of health care and represents a neutral platform which can be used to bring about international collaboration in research. Over the years the Organization has gained experience in the management of international collaborative projects and worked with leading institutes and scientists in most countries of the world. In the following pages the results of WHO's efforts in coordinating and stimulating research will be briefly described to illustrate the potential which WHO has in the global effort to improve health.

Research activities included in the programme fall in five groups: (1) those concerned with the development of a common language; (2) those concerned with specific clinical, biological and

* Additional references and details of the WHO programme for child psychiatric disorders may be obtained from the author.

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social characteristics of wide-spread mental, neurological and psychosocial problems; (3) those concerned with the development of methods of treatment and prevention of these problems; (4) those concerned with the provision of care; (5) and those dealing with psychosocial aspects of general health care.[1]

DEVELOPMENT OF A COMMON LANGUAGE

An essential prerequisite for collaboration in the field of mental health is agreement on a language which can be understood and will be used by all concerned. Such an agreement must cover terms used in the description of mental and neurological functioning; diagnosis and classification; indicators of presence and nature of mental, neurological and psychosocial problems (including those related to alcohol and drug dependence) and of the success of measures undertaken for their solution; terms referring to environmental factors or situations relevant in mental health investigations; and the description and use of methods of investigation (including specific requirements, e.g. how biological samples are obtained).

After some ten years of work, WHO produced a classification of mental disorders, now included in the ninth revision of the International Classification of Diseases (WHO, 1978*a*). The methods used to achieve this included a series of case-history exercises, reviews of the literature and diagnostic practices in many countries and intensive discussions between mental health experts and statisticians from some thirty countries on the most acceptable categorization of mental disorder (Astrup & Oedegaard, 1970; Averbuch *et al.* 1968; Helmchen *et al.* 1973; Kramer *et al.* 1979; Shepherd *et al.* 1968; Shepherd & Sartorius, 1974; Tarjan *et al.* 1972; WHO, 1970, 1973*a*; Rutter *et al.* 1975; Sartorius, 1976; Kramer *et al.* 1979).

To ensure agreement on the content of categories included in the classification, a glossary with definitions of categories of mental disorders listed in the classification was developed in collaboration with experts in sixty-one countries (WHO, 1974; 1978*b*). In addition, work has been undertaken on standardization of terms in relation to epilepsy and cerebrovascular disorders, in collaboration with experts from different countries and centres collaborating in neuroscience projects (WHO, 1973*a*, 1978*c*).

The work of the chapters dealing with mental and neurological disorders became even more intensive in the preparation for the tenth revision of the International Classification of Diseases. More than 190 centres in 55 countries are involved in extensive tests of the applicability and usefulness of the new proposals, this time accompanied by detailed guidelines for classification (Sartorius *et al.* 1988).

A whole 'family' of classificatory instruments is being developed simultaneously. These include guidelines for diagnosis and classification in research, lexical definitions of terms used in the ICD, a classification of impairments and disabilities, classifications for use at the primary health care level, classification of reasons for contact with care facilities, and various 'crosswalks' facilitating the translation of terms between different classifications and their revisions (Sartorius, 1988).

In a series of projects undertaken over the years and still continuing, instruments have been adapted or developed for a standardized description of mental states and other characteristics of a patient's condition. The most widely used of these instruments is a description of the patient's present mental state (PSE) (Wing *et al.* 1974). This instrument, first developed in English by Wing *et al.*, has been extensively tested in some twenty countries and now exists in more than thirty languages; the fact that its application closely resembles a clinical interview is an important feature of the method because it allows the acquisition of reliable data about the mental state in a manner familiar and acceptable to both the research worker and the patient. The instrument was initially used to assess functional psychoses; subsequent testing proved its applicability in less severe conditions and most recent work indicates that, with appropriate modifications, it can be used for the assessment of mental disorders of varied aetiology and severity. A shortened version of the PSE has been used with success as a screening instrument in non-patient populations by Wing *et al.* (1977), Cooper *et al.* (1977),

[1] References for the work described on this paper are given at the end of the paper. A comprehensive list of documents and publications of the Mental Health Programme is available on request (WHO, 1988).

and by investigators in WHO coordinated studies on the extension of mental health care (Harding, 1978) in Colombia, India, Senegal and Sudan, and on the psychosomatic sequelae of female sterilization in Colombia, India, Nigeria, the Philippines and the UK (WHO, 1984*a*).

The PSE has more recently been incorporated into a system for comprehensive assessment in neuropsychiatry (SCAN) (Wing *et al.* in the press) which is being tested in some 20 countries simultaneously in the framework of a major project carried out jointly by WHO and the Institute for Alcohol and Drug Abuse, and Mental Health of the United States of America (Jablensky *et al.* 1983). The same project is also engaged in testing two other instruments: the Combined International Diagnostic Instrument (CIDI) which will be used mainly in epidemiological research and is currently being tested in 19 centres in 16 countries (Robins *et al.* in the press), and the International Personality Disorder Examination (IPDE) tested in 16 sites in 13 different countries (Loranger *et al.* in preparation).

The PSE was used in a major international study on schizophrenia. In this investigation some 1200 patients were examined to establish whether similar cases of schizophrenia exist in different cultures and to develop instruments needed to obtain comparable clinical and social data which would allow transcultural mental health studies (WHO, 1973*b*, 1975, 1979*a*). Several other instruments standardizing the assessment of relevant facts have been developed in the course of this and subsequent studies (Sartorius, 1973; Jablensky, 1978; Sartorius, 1987). These include screening methods to identify patients with functional psychoses, instruments to assess the psychiatric history and social condition of the patient and others. More recently, the centres involved in the schizophrenia study examined reasons for differences in outcome of schizophrenia between developing and developed countries (Sartorius *et al.* 1986*a*; Jablensky *et al.* in the press) and a set of new instruments was developed in this work: they deal with the assessment of impairment and disabilities (WHO, 1988); the perception of mental illness by families in different cultures; the recording of life events, of follow-up information and of other facts relevant to the investigation of the origin, course and outcome of mental disorders.

Instruments for the assessment of specific conditions have also been developed. So, for example, an instrument for the assessment of depressive disorder resulted from a multinational study of depression (Sartorius *et al.* 1983). This instrument was originally tested in five countries and is now available in some 15 languages. It covers the clinical state, psychiatric history and socio-demographic data and was found to be applicable and acceptable in the populations studied. Instruments for the assessment of alcohol- and drug-related problems have been developed in the framework of the projects on community response to alcohol-related problems and in the research and reporting programme on drug dependence.

Instruments for the assessment of impairments, handicaps and associated disabilities in psychiatric patients have been developed in a collaborative study involving eight countries in Europe and Sudan (WHO, 1988). This set of instruments includes the Psychological Impairments Rating Schedule (PIRS) and the Disability Assessment Schedule (DAS), both designed for use in conjunction with the Present State Examination mentioned above.

In addition to developing instruments for the assessment of mental states of individuals, the Organization has also undertaken to develop methods for evaluating the mental health needs and resources of communities and countries. These include a first stage screening procedure for the detection of psychiatric cases in primary health care settings (for both adults and children), an interview schedule for use with key informants to assess their attitudes and obtain help in case identification, and a method for the assessment of the effects of psychiatric illness on the immediate family of the patient (Harding *et al.* 1980; Wig *et al.* 1980). These instruments have been shown to be applicable and acceptable in a number of developing countries. Equivalent versions of the whole set of instruments exist in Arabic, English, French, Hindi, Tagalog, Portuguese and Spanish. It is expected that the earlier mentioned CIDI will also be suitable for use in community surveys of mental disorders.

A project coordinated by the European Regional Office brought together investigators from most European countries aiming to define

methods for the description of needs and resources for mental health care in defined catchment areas. In each of these areas teams of research workers have carried out a census of patients and facilities providing care and proceeded to study the movement of patients in the services (WHO, 1987). Routinely available data were used in this investigation, which has resulted in several publications. In another study, data available at national level are being examined to define a minimal set of information necessary to monitor mental health needs for purposes of planning and evaluation of national programmes concerned with mental health (WHO, 1979*a*).

The response of communities to major psychosocial problems – such as those related to alcohol consumption – needs careful assessment prior to intervention programmes. A study on community responses to alcohol-related problems has been carried out in Mexico, Scotland and Zambia, and its report indicated ways of collecting data and problems likely to arise in assembling and interpreting such data (Hawks, 1978). Instruments for the assessment of drug dependence problems have also been developed in collaborative projects (Hughes *et al.* 1980; Arif *et al.* 1987).

Instruments and protocols for the epidemiological assessment of neurological problems constitute another area in which these is a need to achieve agreement, and studies using a protocol developed by WHO have been carried out in a variety of countries (Osuntokun *et al.* 1982*a*, *b*; Cruz *et al.* 1984; Wang *et al.* 1983).

Finally, there is another area of standardization which has been given attention – biological investigations in psychiatry. Centres collaborating in the WHO projects in biological psychiatry have agreed on several such methods and use them in investigations of biological factors possibly involved in the pathogenesis or treatment of mental disorders (WHO, 1978*d*, *e*). Standardization of this kind of work covers details of techniques for taking samples of blood, urine, CSF and other biological material and transporting them from laboratory to laboratory, often in different countries. Similar work has been initiated in the programme concerned with the research on and control of neurological disorders.

Characteristics of mental and neurological disorders and of psychosocial problems of major public health importance

(*a*) *Schizophrenic syndromes*

WHO's first major research effort was concerned with schizophrenia; the International Pilot Study of Schizophrenia (WHO, 1973*c*) was launched to establish whether it is feasible to carry out collaborative projects in psychiatry using a commonly agreed protocol with the active involvement of investigators from different countries. Centres in Denmark, Colombia, China, India, Nigeria, Czechoslovakia, the UK, USA and USSR participated in a study in which a series of patients consecutively admitted to psychiatric facilities were examined by means of standardized research instruments. The study proved that international collaboration in psychiatric research is feasible. It also produced instruments for standardized assessment of patients in different cultures and contributed to our knowledge about schizophrenia by demonstrating that: (i) similar schizophrenic syndromes exist in all of the cultural settings included in the study; but that (ii) the course and outcome of schizophrenia show significant differences between countries – patients in developing countries having on the whole a more favourable course and outcome than their counterparts in the developed world (WHO, 1979*a*).

The centres participating in this programme were then engaged in a series of studies aiming to explore some of the possible reasons for the differences in outcome. To exclude errors in sampling as an explanation of differences, an incidence study has been launched in geographically defined areas involving all agencies which are likely to be contacted by patients and their families (Sartorius *et al.* 1986*a*). Other studies to test hypotheses explaining differences in outcome include an investigation of emotional interaction in families in different cultures (Wig *et al.* 1987*a*, *b*; Leff *et al.* 1987); a project exploring the frequency and type of stressful life events in different settings (Day *et al.* 1987); and a study of social and individual factors likely to contribute to the development of impairments and disabilities in patients with schizophrenia (Jablensky *et al.* 1980). In another study the

frequency of specific physical disorders in schizophrenic patients was examined using a record linkage technique (Dupont *et al.* 1986; Nakane & Ohta, 1986).

Immunological and other biological studies of schizophrenia have also been undertaken. A network of centres located in Basle, Gröningen, Munich, Washington, Moscow, Epsom and Copenhagen collaborated in a study which showed that the levels of serum antithymic activity (ATA) were high among schizophrenic patients and their relatives. High ATA was therefore considered by the investigators as an indication of high risk for schizophrenia (Koliaskina *et al.* 1980). ATA values did not discriminate between patients with schizophrenia and normal persons.

(*b*) *Acute psychoses*

Acute psychoses, often described as the most frequent reason for admission to hospitals in developing countries, have been investigated in a multicentre study involving centres in Ibadan (Nigeria, Cali (Colombia), Aarhus (Denmark), Honolulu (USA), Bali (Indonesia), Manila (Philippines), and six centres in India. The study aims to obtain information which will lead to a better psychopathological delineation of the syndrome and facilitate sociological, clinical and biological studies of this condition. Methods developed in the study of Determinants of Outcome of Severe Mental Disorders and other WHO projects have been used in this investigation, with appropriate additional parts developed on the basis of an analysis of case-histories of patients with acute psychoses seen in the centres collaborating in the study. Detailed descriptions of more than 1000 such patients have been collected and are being analysed (Cooper & Sartorius, in preparation).

(*c*) *Alcohol-related problems*

The growing realization that alcohol-dependence syndromes represent only a part of alcohol-related problems ranging from cirrhosis to traffic accidents, as well as recent developments pointing to the way to effective intervention, revived WHO's commitment to action in this field. First, a research project to explore the response of communities to alcohol-related problems was carried out in Mexico, Scotland, and Zambia; it developed instruments for the acquisition of data relevant to the assessment of the size and nature of problems and responses in geographically defined communities (Hawks, 1978). The project also produces a catalogue of interventions which were used in the communities studies.

Arising from this work, a number of more recent studies have examined the effectiveness of particular interventions in a variety of cultural settings. Of these, the most complex has been concerned with the identification and management of individuals who experience alcohol-related health problems but without necessarily being sincerely dependent upon alcohol. The first phase of this study involved centres in Australia, Bulgaria, Kenya, Mexico, Norway, and the USA; it has led to the development of a simple screening instrument (Saunders & Aasland, 1987). In the second phase, these six centres have been joined by four more (in Costa Rica, UK, USSR and Zimbabwe) and testing is now taking place of a range of simple treatment interventions suitable for delivery in primary health care settings (WHO, 1988).

A parallel study examines the effectiveness of health promotion approaches to the prevention of alcohol-related problems. Centres in Botswana, Costa Rica, Fiji and Sri Lanka are collaborating in the preparation of assessment guidelines based upon the results of the research undertaken at national level in these four countries. Linked to this study has been an evaluation of the relative effectiveness of peer- and teacher-led approaches to alcohol education for young people in Chile, Norway, Swaziland and Western Australia. The results of this study (Perry & Grant, 1988) are encouraging, showing that peer-led education, adapted to the needs of developing countries, produces positive changes not only in terms of increase in knowledge, but also in stimulating more health-orientated attitudes and behaviour.

In collaboration with researchers from 15 countries, WHO is involved in the re-analysis of data from some 40 longitudinal studies on drinking behaviour and alcohol-related problems (Fillmore *et al.* 1989). The impetus for this work came from a 1984 task force meeting of the Advisory Committee on Medical Research's subcommittee on biobehavioural science and mental health (WHO, 1983). Utilizing a research methodology based upon

techniques of meta-analysis, this project explores the interrelationships between culture, history, chronological age, and alcohol use and abuse.

Through a series of small pilot studies of patients contacting emergency departments in a range of countries in the Americas, Africa and Western Pacific, WHO is examining the role of alcohol in the causation of accidental injuries. This work is supported by a constant effort to improve the collection and dissemination of health and other (e.g. trade) statistics concerning alcohol-related problems (Walsh & Grant, 1985). This work will benefit greatly from earlier studies carried out jointly with the Finnish Alcohol foundation (Bruun *et al.* 1975) and a major review of approaches to the prevention of alcohol-related problems in some seventy countries (Moser, 1980). The European WHO Regional Office also collaborated in an International Study of Alcohol Control experiences carried out jointly by centres in Europe, the UK and Canada (Finnish Foundation for Alcohol Studies and WHO Regional Office for Europe, 197). More recently, the Organization has also initiated biological investigations of alcohol problems. A first study examined characteristics of alcohol in different populations (Yamashita *et al.* 1986); plans for a multicentred study of biological, psychological and social predictors of relapse after treatment have been developed, and it is expected that work in this area will start in 1988.

(*d*) *Depressive disorders*

A programme of investigation on depressive disorders was started in 1972. This programme contains studies with an epidemiological orientation, biological studies and operational research (Sartorius, 1975, 1979).

Among projects with an epidemiological orientation, the largest was a prospective ten-year follow-up study of depressive patients in four different countries.

Some 550 patients with depressive conditions were included in the study. All of them were assessed by means of a standardized method of assessment developed by the centres in Basle, Montreal, Nagasaki, Teheran and Tokyo in collaboration with WHO (WHO, 1983*c*). It was shown that psychiatrists in the different centres used the same diagnostic criteria to distinguish between endogenous and non-endogenous depressive conditions, and that the clinical characteristics of the patients within those groups did not differ among centres. Before it can be said that depression in different countries shows the same characteristics, it is clearly important to prove that its course and outcome do not show major differences from country to country. A ten-year follow-up study has therefore been carried out and its results will be published shortly.

Another set of studies explored the biological characteristics of depressive disorders. Genetic linkage of bipolar manic-depressive illness and red/green colour blindness was examined on sixteen pedigrees identified and analysed in a collaborative study involving four centres – Basle, Bethesda, Brussels and Copenhagen. This study led to the conclusion that bipolar illnesses are significantly heterogeneous and illustrated one of the advantages of collaborative studies which can help to speed up the accumulation of data on rare cases – such as those in which bipolar illness and colour blindness coincide – in which an important issue can be examined (Gershon *et al.* 1980). In another biological study human lymphocyte antigens in patients with affective disorders were studied in four centres: the study failed to show any consistent results (WHO, 1978*e*, *f*). In the same direction of enquiry, possibilities for developing a biological classification of depression were explored in a study on differences between endogenous and non-endogenous depressive patients in responses to the clonidine growth hormone stimulation test (WHO, 1978*e*, *f*). Another study has dealt with the treatment of depressive conditions in patients living in different geographical locations (see below).

(*e*) *Drug dependence*

An important component of projects dealing with the implementation of country-wide drug demand reduction programes[1] is evaluative research.

To be able to undertake it, a project was launched in 1972, aiming to develop instruments

[1] These projects are undertaken in cooperation with countries and often involve the United Nations Division on Narcotic Drugs and the United Nations Fund for Drug Abuse Control, as well as UN specialized agencies such as WHO, International Labour Office, United Nations Educational, Social and Cultural Organization, Food and Agriculture Organization.

and techniques necessary to enable countries to report on changes in drug dependence problems and learn about trends in other parts of the world. In carrying out this work, WHO has collaborated with centres in Burma, Indonesia, India, Malaysia, Pakistan, Thailand, Canada, Mexico, the USA and others. This work has so far resulted in an internationally tested instrument for surveys of drug-use in student populations (Smart *et al.* 1980); in a reporting card which can be used in treatment facilities for drug-dependent people; in the definition of a 'core' data-set for surveys and case reporting (Hughes *et al.* 1980); and in protocols for the evaluation of results of treatment in different settings (Hughes *et al.* 1980).

Other studies examined the dependence liability of thebaine (WHO, 1978*f*); the pharmacological and clinical effects of khat (WHO, 1980; Khan & Kalix, 1984); the clinical and social consequences of long-term use of cannabis (Wig & Varma, 1977); and the effects of chewing coca leaves and using coca paste (Arif, 1987). Instruments and methods necessary to assess public health and social problems associated with the use of psychotropic substances have been developed (Jdänpään-Heikkilä *et al.* 1987). These methods will be used in studies undertaken to help WHO fulfil its responsibilities under the Convention on psychotropic substances which require WHO to make recommendations to the United Nations Economic and Social Council concerning international control of these medicaments.

The use of methadone in the treatment of opiate dependence has been subject to international review (Arif and Westemeyer, 1988). In addition, centres in a number of American and European countries are collaborating in an assessment of the relative importance of a variety of risk factors for the development of drug dependence. This work has been given renewed impetus by the emergence of the AIDS epidemic, spreading in part through the use of contaminated needles and syringes by drug-dependent people. A series of pilot studies in major cities where HIV infection rates are thought to be linked to rates of drug abuse have been undertaken to learn about the epidemiology of intravenous drug use, which is of importance to WHO's programmes on the prevention and control of drug abuse and of AIDS.

(*f*) *Neurological disorders*

A programme concerned with the control of neurological disorders was started in the early 1970s and involves leading neuroscience centres in Canada, France, Mexico, Nigeria, Senegal, Switzerland, the USA and USSR (Bolis, 1978*a*, *b*). The centres were engaged in several WHO-coordinated research activites including a study on peripheral neuropathy and a study on transient ischaemic cerebrovascular attacks. Following a meeting of a study group on applications of neurosciences in the control of neurological disorders (WHO, 1978*g*), epidemiological surveys of neurological disorders in African and other developing countries have been carried out. Currently, epilepsy and cerebrovascular disorders are seen as conditions which deserve priority in WHO's programme: work on problems related to their prevention and treatment is therefore undertaken simultaneously to the stimulation of neuro-epidemiological studies and disseminating information.

(*g*) *Suicide*

Trends in suicide rates are examined at regular intervals (WHO, 1982*a*, 1983*a*). In addition, WHO has brought together research workers to examine various issues of importance in suicide trend analysis, e.g. the reliability of coroner's reports, factors influencing national statistics, etc. (Brooke, 1974). Most recently, a major study of preventive interventions against suicide in adolescence has been planned and will start in 1989.

Development and improvement of treatment methods

A study of the effectiveness of antidepressant medication has been undertaken by a network of centres in Basle, Gröningen, Munich, Epsom, Moscow, Bethesda and Copenhagen. In this study, plasma levels of amitriptyline have been measured and correlated with clinical responses assessed with standardized instruments (Coppen *et al.* 1978): no significant correlation could be established.

A set of studies dealing with the effectiveness of medicaments have been undertaken. The largest of these were the WHO coordinated studies of the effects of psychotropic drugs in

different populations (Sartorius, 1981; WHO, 1978*i*, 1986*b*, 1988).

Anecdotal accounts and occasional reports in the literature seem to indicate that populations living in settings differing in climatic, nutritional and sociocultural conditions require significantly different dosages of common psychotropic drugs. The importance of this finding is obvious and WHO carried out double-blind collaborative studies on dose effectiveness of the frequently used antidepressants and neuroleptic medicaments in several countries. A set of instruments for the assessment of the clinical conditions and their changes was produced using some of the schedules mentioned above and some newly developed techniques. Antidepressants have been examined in centres in Basle, Bombay, Cali, Nagasaki, Lucknow, Sapporo and Nashville. Three striking findings emerged: first, that antidepressant treatment is effective in a vast majority of cases; second, that there are few if any differences in treatment effects between the low and high dose of antidepressant drugs; and third that most of the differences in dosage across countries can be explained by diagnostic and therapeutic habits of psychiatrists. The effectiveness of benzodiazepines was also examined in some of the centres participating in these investigations. It demonstrated clearly the value of counselling and the superiority of the combined use of counselling and medicament use over the use of medicaments alone (WHO, 1988*b*). It also produced evidence about instruments used in the assessment of effects of treatment of mild mental disorder in different cultures. Other studies in this area include the investigation of the therapeutic 'window' of neuroleptics, the effects of naloxone on schizophrenic and manic syndromes (Pickar *et al.* 1987) and regular surveys of the use of psychotropic drugs in different populations.

Organization of mental health services: assessment and development of new models

A major focus of WHO's cooperation with countries is the improvement of provision of mental health care. Several studies have been initiated to gain knowledge which can be used to make services more rational and cost effective.

The most important among them is a multinational study aimed at developing new strategies for the provision of essential mental health care in developing countries. Teams in Colombia, India, Sudan and Senegal were the first to join in this study; Brazil, Egypt and the Philippines have joined the study soon afterwards. In each country an area was selected, and the extent and nature of mental health problems in the communities were assessed in a standardized and comparable manner. On the basis of this information 'priority' conditions were selected using as criteria frequency, harmful consequences, community concern and availability of effective, simple and inexpensive treatment. Specific, short training courses were designed to instruct health workers already working in the area on how to detect these 'priority' mental health disorders and how to deal with them effectively (Sartorius & Harding, 1983; WHO, 1984*a*). These studies demonstrated that decentralized, non-specialist mental health care provided largely by auxiliary health care workers can function well and be acceptable to both health workers and the community.

WHO has carried out studies to examine whether the encouragement of recording of psychological and social problems by providing classification also changes health workers' practices and attitudes towards such problems. WHO has prepared a set of instruments designed to provide measures of health workers' attitude, sensitivity and empathy. These have been pilot tested in a number of centres (Canada, Belgium, the Philippines and Zambia) and comprehensive studies on this topic have been completed in Belgium and are still proceeding in Manila.

In conjunction with this study, the usefulness of algorithmic approaches was examined in a study dealing with methods of management of mental disorder in primary care. A set of flow charts and an instruction manual for their use were produced (Essex & Gosling, 1982): these were evaluated in Lesotho in 1986 (Meursing & Wankiiri, 1988). The study compared the prescribed management of a series of psychiatric cases presenting for the first time in out-patient clinics as set out by general nurses trained in the use of the flowcharts with that prescribed by a mental health professional using conventional diagnostic processes. The study demonstrated that, with few exceptions, the nurses' management plan was not seriously different from that of the mental health professionals. The few

serious differences indicated in what ways the charts and training should be modified to reduce these. The training of nurses was carried out in only 13 hours of instruction.

Parallel to studies of the pilot study areas WHO and its European Regional Office have made a continuous effort to define roles of different types of health workers in the provision of mental health care. A series of publications describing them have appeared over the years. More recently, the European Office has undertaken assessments of specific types of services, e.g. crisis intervention units (Cooper, 1979).

An investigation of the understanding and use of the concept of dangerousness by psychiatrists, jurists and law enforcement personnel was carried out in six countries (Brazil, Denmark, Egypt, Swaziland, Switzerland and Thailand). The three main components of this study were (*a*) a review of legal provisions; (*b*) a description of the processes used to arrive at a conclusion about the dangerousness of a mentally ill person (Montandon *et al.* 1984); and (*c*) an assessment of the degree of reliability (i.e. inter-rater agreement) which experts can achieve in their assessments. This study was initiated after a thorough review of mental health legislation in some forty countries which pointed to the assessment of dangerousness as a key element in mental health legislation (Curran & Harding, 1978).

Another set of investigations aiming at facilitating care provision dealt with the improvement of information about the functioning of mental health services. These studies helped to develop an internationally acceptable and applicable method of collecting and presenting useful data about mental health needs and resources at national level. Teams of investigators in Bulgaria, Thailand, Panama, Ghana, the USA, Papua New Guinea and Kuwait were involved in this study (Gulbinat, 1984).

Psychosocial aspects of general health care and high-risk group research

One of the mental health programme objectives deals with psychosocial aspects of general health and development. This objective is being pursued by several means. One of them is the organization of workshops which involve health planners and behavioural scientists and in which specific health service delivery issues are being examined to establish possible contributions from a psychosocial point of view (WHO, 1982). Another approach is the establishment of multidisciplinary groups and centres at national level; another series of publications reviewing knowledge in the field exists (e.g. Hamburg & Sartorius, 1989; Shepherd & Sartorius, 1989). There are, however, also specific studies dealing with special problems in this area.

One such study dealt with psychosomatic consequences and perceptions of tubal ligation, a widely used fertility regulation intervention (WHO, 1984*a*). Another study in several European countries is underway to examine the nature and frequency of problems in children of transnational and intranational migrants. The investigations on high-risk groups also include studies on the emotional interaction in families in which one or more members are suffering from a severe disease.

In the period 1983–5, WHO developed a set of criteria to judge the quality of care provided in day centres (nursing and pre-school) for children. The reliability of these criteria in use has been examined, as measured by comparing the ratings of two investigators on separate occasions. This was carried out in two cities (Athens and Ibadan) using about 30 day-centres in each. Although most of the 74 criteria were found to be used very reliably, a few have been modified as a result of this exercise.

The frequency and impact of life events on patients with mental disorders were studied to obtain information on differences among cultural settings in the frequency of life events and on coping strategies employed to overcome their negative effects (Day *et al.* 1987).

The reasons for contacts between patients and health care agents were examined in a multicentric study carried out in seven countries. The results of this study served as a basis for the development of a classification of psychological and social problems encountered in primary health care and for the formulation of a triaxial recording procedure (Sartorius & Gulbinat, 1983, Clare *et al.* 1989).

A series of other projects have been initiated recently. One deals with the methods of measuring quality of life in patients suffering from cancer and other chronic disease; another

with methods for the assessment of effectiveness of health education in diseases such as diabetes. These and other studies dealing with various aspects of disease prevention and control are part of an expanded programme of the Organization in this field (Sartorius & Diekstra, 1989). In this effort the potential contributions of behavioural sciences are being systematically examined (e.g. Holtzman *et al.* 1987).

CONCLUDING REMARKS

The tale about Achilles and the tortoise exemplifies the difficulty of catching up with a point in a progression regardless of the amount of effort: descriptions of problems (and programmes) are outdated even before they are finalized. The review presented here is no exception: it must therefore be seen as a snapshot taken at a randomly selected point in a process, a snapshot which reminds us of the past and of the future and makes us aware of the imperfections of the apparatus which we are using to capture the wealth of events and features contained in a moment of time.

This paper describes work carried out by many individuals in countries and in WHO over the years. Among them are the members of WHO staff currently responsible for coordinating WHO activities in the field of Mental Health, at Headquarters, the Regional Offices, and in the field, including: R. Diekstra, M. Grant, W. Gulbinat, I. Khan, I. Levav, J. Orley, L. Prilipko, J. Sampaio Faria, N. Shinfuku, and N. Wig. Their achievements, in turn, are also based on the work of many others who have been coordinating WHO mental health programme activities previously. In recent years these included A. Jablensky, A. Arif, P. V. Morozov, J. Henderson, H. Sell, R. Gonzalez, and R. Day.

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